

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Ben Markin

GENERAL INFORMATION:

Name:	Kentucky Utilities Company Green River Generating Station
Address:	U.S. Highway 431, Central City, Kentucky 42330
Date application received:	September 17, 2004
SIC/Source description:	4911/ Generation and Transmission of Electricity
Source I. D. No.:	21-177-00001
Source AI No.:	3228
Activity No.:	APE20040002
Permit number:	V-06-014

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
__Administrative	<input checked="" type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input checked="" type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input checked="" type="checkbox"/> Other - NOx Budget
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

- ☒ Acid rain source
- ☐ Source subject to 112(r)
- ☐ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☐ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants)

EMISSIONS SUMMARY:

Pollutant	Actual (tpy)	Potential (tpy)
PM	273.7	1,184.48
PM ₁₀	67.6	288.16
SO ₂	19806.3	38,396.19
NO _x	1678.3	4,274.88
CO	122.9	194.31
VOC	14.3	23.32
HAP > 10 tpy (HCl, CAS# 7647-01-0)	Not reported	519.97
Total HAPs > 25 tpy	Not reported	980.45

Notes:

Please refer to the detailed emission calculations in the Pollutants of Concern Table.

Source Process Description:

The Green River Generating Station is an electric power generation plant located on the banks of the Green River in Central City of Muhlenberg County, Kentucky. The station consists of two (2) coal-fired boilers, supplying steam to two (2) dedicated turbine-generators. The boilers are pulverized coal-fired (number two fuel oil for startup and stabilization), dry bottom, wall-fired type boilers. Boiler #4 and Boiler #5 are each equipped with an electrostatic precipitator for particulate control. Boilers #4 and #5 are also equipped with low NO_x burners. Boilers #1, #2, and #3 were retired from operation in December 2003. These three units were collectively identified as Emission Unit 01(01) in initial TV Permit No. V-97-045 and in the KyEIS.

Coal is received by truck and is unloaded through the handling system at a maximum rate of 400 tons/hr. The coal is either diverted to an open storage pile or is transferred via conveyor to a crusher house. The crushed coal is then conveyed to coal storage bunkers for feed into the boiler #4 and #5 pulverizers. Coal can also be reclaimed from the open storage pile for transfer into the crusher house, so it can then proceed through the coal handling system. Wet suppression is applied to the open coal storage pile as necessary to control fugitive emissions.

The fly ash handling system removes the bottom ash and fly ash residuals created from the combustion of coal. Bottom ash falls to the bottom of the boiler where it is collected in the boiler ash hoppers. Fly ash is captured in the electrostatic precipitator, the economizer and the air heater and is collected in each of these places through a hopper system. The ash (bottom and fly) collected in each of these hoppers is then sluiced (via a water jet system) to the ash treatment basin on site.

There are no significant modifications to the facility for this Title V Operating Permit renewal.